STAT MEMORANDUM FOR: [redacted]

SUBJECT : CASCON Evaluation

1. This memorandum presents the agreed-upon findings of the following persons, who jointly investigated CASCON:

D R A F T
6 February 1974

STAT MEMORANDUM FOR: [redacted]

SUBJECT : Intelligence Community Analyst Support

1. Prior to our direct involvement in investigating
STAT CASCON, [redacted] IHC/SS, had been investigating the possibility of obtaining a computer terminal that could be used to enter the ARPA network and access not only CASCON but other applications software at other computer centers. The purpose being twofold: (a) to learn from the successes and failures of the ARPA net and apply these lessons to an intelligence community network, and (b) to more specifically become familiar with the applications programs at UCLA, Harvard, MIT, USC and SRI to name a few. The latter goal to determine whether applications programs at these computer centers would better assist the intelligence community in doing its work and if so to install selected programs on an evolutionary basis on Intelligence Community host computers. This is necessary for operational data usage since the ARPA network operates in an unclassified mode.

2. The first phase would be to install one terminal at CIA Headquarters to enter the ARPA net and become somewhat familiar

with the nets capabilities. This phase would run 4 to 6 weeks. The second phase would be to install terminals at a minimum of two other locations (e.g., State and DIA) so that conferencing among all three locations could be accomplished. The second phase would be more closely tied-in with the SRI Computer Augmentation Laboratory Computer; as well as other host computers in the ARPA net, and to fully explore the use of that system for text processing and data storage and retrieval techniques. Outputs of this investigation would be fed on an evolutionary basis to members of the intelligence community to be adapted as appropriate for their host machines. To accomplish this second phase will require the assignment of an individual at each location (i.e., CIA, State, DIA) who will be designated as a "Workshop Architect." ~~They~~ These people will be trained to be familiar with the ARPANET and more specifically with the SRI system so that they can function as a window between the host agency and the ARPANET. Their functions will be to translate the capabilities of the ARPANET to bear on substantive problems of the host agencies. The overall test would be overseen by the IHC/SS in connection with members of the IC Staff with some outside assistance from, for example, the MITRE Corp. The MITRE people are working for ARPA in the ARPA Network Information Center (NIC) area to assist ARPANET users. (The NIC is at SRI.) The IHC/SS and MITRE people would be responsible for a weekly/daily

newsletter and prepare quarterly reports. They would also assist in translating applications programs, as required from ARPANET host computers to Intelligence Community host computers. This phase would last a minimum of 6 months to one year. The initial direct costs would minimal.

3. There are three ways of entering the ARPANET in the Washington area; through the Terminal Interface Processor (TIP) at ARPA, the TIP at MITRE, or the TIP at NBS. The method entering is through the unclassified black dial-up telephone. The network can probably be used on a no-cost basis for a few months according to discussions with ARPA, MITRE and SRI personnel. If we wish to make extensive use of the SRI system the yearly block charges will be approximately $40K. The cost of a part-time or full-time MITRE man has not been determined.

4. Approval to put together a more detailed plan of action is requested. If you concur it is requested that you sign the concurrence space below to direct the IHC/SS to initiate Phase I (no direct cost to obtain a terminal from OJCS and that an OJCS computer programmer/analyst be assigned for between 4 and 8 hours per day, for 4 to 6 weeks). In addition the IHC/SS should prepare a specific plan for Phase II to explore the use of the ARPANET for IC applications.

STAT

Acting Chairman
IHC

Concur: to initiate Phase I (ARPANET Terminal) and prepare a detailed plan for Phase II for the Intelligence Community to use the ARPANET.

D/DCI/IC

PD/DCI/IC

D/PRG/IC

D R A F T
6 February 1974

STAT

MEMORANDUM FOR: [redacted] PD/DCI/IC

SUBJECT : ~~CASCON~~ Report ~~to DCI~~ on CASCON

1. CASCON had its genesis in an earlier study under the sponsorship of the U. S. Arms Control and Disarmament Agency entitled Control of Local Conflict: A Design Study. That study sought to explore the general problem of conflict in the developing regions of the world. Through both theoretical analysis and the study of empirical historical evidence, the Design Study generated a dynamic model of conflict that formed a framework for the identification of conflict phases, factors militating toward and away from increased violence, and suggestive conflict control policy measures.

The goals of that study were to generate hypotheses about "local conflicts," to test them to the extent possible, and to structure the problem in such a way that arms control and other policy actions would emerge, along with suggestions for further research. The analytic effort of the CASCON computer simulation stemmed from a desire to create some mechanism to make available to government or international organization officials the information, insights, and suggestions embodied in the Design Study and its accompanying historic

case studies. The result was the experimental development of a Computer-Aided System to handle information on local Conflict or CASCON for short. The ultimate objective was to make believable and usable, for the responsible official, a variety of suggestive policy measures that might further the high goal of prevention, containment, or termination of a given local conflict, and thus the avoidance of possible escalation to nuclear war.

More specifically, the first CASCON effort for the ACDA, which was completed in 1969, was an experimental effort to develop, through computerization of the local conflict control model, a system for making available rapidly and in usable form historical information and insight relevant to the control of particular types and phases of local conflict situations. It provides:

a. a cumulative read-out on the evolution of critical variables in the particular conflict situation with which the user is dealing; and

b. an identification of similar patterns of variables which have appeared at the same stage of other conflict situations, together with (1) control measures which were applied successfully or unsuccessfully, and (2) control measures which though not attempted, seem to have been warranted in those situations.

The CASCON model is divided into the following phases and settlement stage:

PHASE I	Dispute, pre-hostilities, pre-military
PHASE II	Pre-hostilities, but dispute seen in military terms
PHASE III	Hostilities
PHASE IV	Post-hostilities, but conflict (military option) remains
PHASE V	Post-conflict, but dispute remains
S	Settlement of dispute

STAT

[redacted]

IHC/SS, visited members of the Arms Control and Disarmament Agency and discussed CASCON. The conclusion was that no one at the ACDA ~~is or~~ has used ~~the~~ CASCON for substantive matters, since the details ACDA requires were not available in the model.

STAT 3. [redacted] has had further discussion with members of ARPA and JCS-SAGA (Studies Analysis & Gaming Agency) and the State Department regarding their interest and use of CASCON & CASCON II, an expanded and improved version of the CASCON. CASCON had data on 27 cases of local conflict while CASCON II had data on 52 cases. ~~in addition~~ the CASCON II, ~~which was~~ developed in the Summer of 1971, is an interactive on-line system as opposed to the remote batch operational mode of CASCON.

The ARPA people were familiar with CASCON but believe there are other simulation models available which are better. A meeting has been arranged with ARPA, IC, IHC/SS, OCI and State Department personnel for 12 February 1974.

The SAGA people were also familiar with CASCON and thought the concept was good; however, there were other models which were more useful including some internal analysis simulation that SAGA had done. A meeting is also being arranged with SAGA personnel to further discuss this area.

The State Department people have had discussions and demonstrations of the CASCON I & II with Professor Bloomfield here in Washington as well as at MIT. Their reaction to CASCON is similiar to the reaction of ARPA and SAGA personnel although they too believe the basic goal is good.

4. In conclusion we are still investigating the CASCON II model and have scheduled follow-on meetings with ARPA and JCS-SAGA personnel to explore similiar and related models. At the present time our conclusions are that the CASCON II is not useful in its present form for senior level people but may be useful for lower level people ~~for use~~ as a training aid or as an indicator checklist when using it with substantive data. The overall basic goal and objectives are sound and techniques of this type should be pursued and refined for substantive intelligence analysts use. Along this line we propose to initiate action to obtain a terminal to enter the ARPANET so that we can more fully explore the capabilities of this network which includes many other applications programs including CASCON.

5. Attached for the D/DCI/IC signature is a memorandum to the DCI outlining the investigations of the CASCON MIT program, and other related actions underway.

STAT

Acting Chairman
IHC

D R A F T
6 February 1974

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT : MIT CASCON Project

1. Members of my staff, IHC/SS and CIA/OCI have investigated the MIT - Professor Lincoln Bloomfield's - CASCON (LIMITED WAR) computer model. Our initial conclusions are that CASCON is not useful in its present form for senior level people.

2. We have had meetings and discussions with ACDA, State, ARPA and JCS-SAGA (Studies Analysis and Gaming) personnel regarding CASCON. None of these agencies have used CASCON for any operational purposes and are not currently interested in CASCON. There are similar models that ARPA and SAGA are presently interested in and we intend to explore these related models. Furthermore, it appears that we should have closer contact with these agencies since the intelligence community problems are similar in nature to their problems.

3. Our investigation to date suggests that CASCON may have some value for lower level people for use as a training aid or as an indicator checklist. We will continue this investigation because we believe techniques of this type may be refined for substantive intelligence analysts use.

4. We have taken action to obtain a terminal to enter the ARPANET so that we can more fully explore the capabilities of this network which includes many other applications programs including CASCON.

Maj. Gen. Daniel O. Graham, USA
D/DCI/IC

D R A F T
6 February 1974

STAT MEMORANDUM FOR: [redacted]

SUBJECT : CASCON Report to DCI

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Acting Chairman
IHC